# Applied Economics (Emergent Markets and Technologies) - Degree in Business Management and Consultancy

## Prof. Lucrezia Fanti

***Text under revision. Not yet approved by academic staff.***

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to introduce students to the economic phenomena related to the unfolding of new digital technologies, the economics of digital platforms, and the impact of the so-called Forth Industrial Revolution on economic growth, labour markets and income distribution. These topics will be analysed at different aggregation levels, that is with a firm-level, sectoral and macroeconomic perspective, by focusing on the impact of new markets and technologies on the Italian socio-economic fabric.

The course is aimed at providing students with the analytical tools, both theoretical and empirical, required to critically understand and appreciate the different topics proposed during the classes.

At the end of the course, students will know the main econometric techniques adopted in the applied economics field as well as the proper economic theoretical framework to understand and interpret the recent literature contributions analysing the impact of new technologies and digital platforms on economic growth, labour markets and income distribution.

***COURSE CONTENT***

Introduction to the course  
– Definition of applied economics

– Definition of markets and emerging technologies

– Some preliminary facts

1. Markets and emerging technologies, technological change and economic theory

– The role of technological change and innovation on emerging markets and technologies

– Synthetic indicators and key economic variables to analyse the impact of technologies and emerging

Focus: economic growth stylized facts (standard)

Focus: neoclassical approach to technological change

Focus: evolutionary approach to technological change

2. Introduction to econometric methods for applied economics

* Types of data and econometric analysis
* Linear regression model: estimation method and main assumptions

Introduction to policy impact analysis: Diff-in-Diffs models and models with instrumental variables (IV).

3. Is it a Forth Industrial Revolution? From ICTs to new digital technologies

– Industrial Revolutions, technoeconomic paradigms and General Purpose Technologies (GPTs);

– Evolutionary approach to innovation and technological trajectories

– From ICTs to new digital technologies

Focus: The Artificial Intelligence (AI) Focus: the Blockchain technology

4. Digital technologies: growth, labour market and income distribution  
– The ‘new’ stylized facts in the digital era: growth, distribution and employment

Focus: the Solow paradox

– Structural change, growth and productivity;  
– Technological unemployment in the digital era;  
– Income distribution and inequalities in the digital era.

5. Digital platforms  
– Definition of digital platforms;  
– Brief introduction to market structures;  
– Market structures and digital platforms;  
– Impact of digital platforms on growth and employment dynamics;

6. Industry 4.0 and industrial policies for the digital transition in Italy and in Europe.

– Industry 4.0 Plan and fiscal incentives to the Italian companies;  
– Adoption of 4.0 technologies along the Italian economic fabric;  
– From 2007 to pandemic crisis: the PNRR (recovery policies) and the policies for digital transition.

***READING LIST***

Reference textbook:

F. Compagnucci-A. Gentili-E. Valentini (2022). *La quarta rivoluzione industriale e l’economia italiana*, Carocci.

Brynjolfsson, E. & McAfee, A. (2015). *La nuova Rivoluzione delle macchine. Lavoro e prosperità nell’era della tecnologia trionfante*, Feltrinelli.

Detailed syllabus and further study material will be made available online on the Blackboard dedicated platform.

***TEACHING METHOD***

The course is held in blended learning mode and includes on-site activities (50%) and remote activities (50%).

The on-site activities consist of interactive lectures to get an overview of the topics covered. The remote activities include video lectures (asynchronous), active discussions on articles or cases through webinars (synchronous), and live feedback sessions. The syllabus containing the analytical course content will be posted on Blackboard.

***ASSESSMENT METHOD AND CRITERIA***

A. *Ongoing assessment*

For students who opt for the ongoing assessment: 50% of the assessment will be based on two tests (an individual written test and a group assignment), taken during the course, according to instructions, contents and timings that will be posted on the Blackboard area reserved for the students enrolled in the course; while the remaining 50% of the assessment will be based on a 45 minutes final written examination.

The test duration is one hour. Students may take the final test only after passing the tests taken during the course. To pass the entire exam, the result of the final test (to be held in one of the 3 exam sessions following the end of the course) must be sufficient.

B. *Single summative assessment*

For the students who wish to opt for a single assessment during the examination session, the exam consists of a 90 minutes written test.

***NOTES AND PREREQUISITES***

A basic knowledge of microeconomics and macroeconomics is essential for a successful course attendance.

Further information can be found on the lecturer's webpage.